

Herbert Irving Gross (1929-2020)

In the spring of 1958, the founding president of Corning Community College an entity that had a name, but little else at the time traveled to MIT in search of someone who could be the first mathematics instructor at CCC. He asked the question, “Who is the best mathematics instructor at MIT?” The answer was unanimous, Herb Gross, a young PhD candidate. The president approached Herb and offered him the position of Mathematics Chair at Corning Community College. Herb’s immediate question was, “What is a community college?” He knew about 2-year colleges, and 4-year colleges and universities, but had never heard the phrase community college. The president’s response was, “I am not exactly sure either, but with your help we will find out.” Herb was a bit apprehensive but fascinated by the idea of working on something entirely new, and the idea of “community.” He talked it over with his wife, Louise, and they made the decision to relocate to Corning and begin a teaching career at CCC. This was a decision that had an impact not only on Corning, but all of mathematics education in the first two years.

Herb Gross was a master storyteller. When he was making a presentation, he used his stories to engage his audience, but also to make a point. The point of the story above is that life is about choices. If the founding president of CCC had chosen some place other than MIT to look for a mathematics teacher, or if Louise had decided that she did not want to move so far from Massachusetts, how would that have changed the trajectory of Herb’s career or the impact that he made on mathematics education?



Herb circa 1960

In the early 1960’s the community college movement was mushrooming across the country. Students who had never considered attending college were now getting a taste of college at their local community colleges. Very quickly the faculty at the two-year schools were learning that they had more in common with their high school colleagues than with their colleagues at 4-year colleges and universities. This came to a head when the Mathematical Association of America, MAA, and their Committee on the Undergraduate Program in Mathematics (CUPM) developed new guidelines for a what they were calling Math 1. At a Seaway Section meeting in Syracuse the new guidelines were presented.

During the question period Herb stood and said, “Professor, with all due respect, what you are calling Math 1, we at Corning Community College would call Math 803. What you are proposing is not realistic.” Herb was not alone in his thinking. The likeminded group got

together and formed the New York State Mathematics Association of Two Year Colleges, NYSMATYC.

In 1967, Herb became the founding president of NYSMATYC, the first discipline related two-year college group in the nation. In 1968, he left Corning to return to the MIT Center for Advanced Engineer Study where he produced a series of calculus videos that have since been digitized and are available on the world wide web. In this era of online instruction these 50-year-old videos are more popular than they were when they were first produced.

In 1973 Herb joined the staff at Bunker Hill Community College where he was the math chair and in 1974 Herb became AMATYC's first president. In 1986, he was named Educator of the Year by the Association of Community College Trustees. From 1989-1993 under the auspices of the North Carolina Department of Community Colleges and in cooperation with the North Carolina Department of Corrections, Herb produced a series of 102 half hour video tapes.

- Four tapes entitled "The Teacher as Coach"
- Four tapes entitled "Math Is Not a Four-letter Word"
- 51 tapes in arithmetic entitled "Gateway to Arithmetic"
- 41 tapes in basic algebra entitled "Gateway to Algebra"

In 1989 I was the president-elect of NYSMATYC and I was lucky enough to secure Herb to be our banquet speaker that year. He told me of his up-coming project, and we bonded over the "Teacher as Coach" series. I had been coaching basketball at CCC for about 10 years at that point and I related to him how I always viewed my job as coach more as a teacher than a motivator. He marveled at the thought that few great players ever became great coaches. The player skills don't translate necessarily into teaching skills and he believed that the great players of mathematics were not often the great teachers of mathematics. This was especially true of students in the community colleges. His premise was that great teachers of mathematics have the same motivating and teaching characteristics of a great coach. His insights made me a better teacher and a better coach.

In Chicago in 2000, I made a presentation at the AMATYC conference on the legacy of Herb Gross. Who was sitting in the front row hanging on every word? Herb. He told me many times afterwards that "I feel so lucky, I got to hear my eulogy even though I haven't died, yet" It wasn't meant as a eulogy and I know he knew that, but he had great fun with that as he did with many subjects. And more importantly he was far from finished.

Herb retired from Bunker Hill Community College in 2003 and began working on developing his many works into PowerPoint slide show format, while continuing to give workshops and presentations. In 2013 MIT digitized Herb's black and white calculus videos that were

mentioned earlier and made them available through YouTube. They had received over 1,000,000 views by early 2015 and many of the students who watched these tapes contacted Herb and corresponded about the content and how helpful they were.

In 2014, he was awarded an Honorary Doctorate from the State University of New York (SUNY). While in Corning that weekend he made a connection with Chris Sharkey of Corning Enterprises, the funding arm of Corning Inc. This led to an opportunity for Herb to conduct summer workshops for Corning area elementary school teachers in 2015 and 2016 as well as the funding of his Math as a Second Language website which contains an abundance of free material for students and teacher alike. All of this from a man in the second half of his eightieth decade on this planet.

As a classroom instructor I never saw Herb in action so I will relate the words of Sam McInroy, a colleague at CCC, and a past NYSMATYC president. "After finishing my NSF master's degree in Math in 1964, I applied to, and was hired by, the Math Dept at CCC. The fact that Herb would be a colleague played a large role in my applying to CCC. Over my first two years at CCC, I audited his Calc I, II, III, DE sequence because I felt that few, if any, instructors could hold a candle to Herb in the classroom. He did not disappoint."



Past NYSMATYC Presidents in attendance at 50th NYSMATYC conference in 2017 at Syracuse, NY



Past NYSMATYC Presidents from Corning Community College 2017. Front Row; Herb and Sam McInroy. Back Row l to r; George Hurlburt, Ray LaBounty, Ernie Danforth



Past NYSMATYC Presidents in attendance at the annual NYSMATYC conference in 2010 at Ithaca, NY

Perhaps, Herb was best known as a motivational speaker. He was the AMATYC Breakfast speaker twice, once in 1993 in Boston, and again in Nashville in 2014. NYSMATYC invited him to their conferences in consecutive years 2010 and 2011, where he made 4 presentations over that time and received a standing ovation every time. I remember vividly Herb's presentation in Nashville. I had a seat next to him at the front of the room. After his presentation, he sits down, turns to me, and asks, "Did I do okay?" This with over 1000 people standing and applauding. I simply shook my head and replied, "Yeah, Herb, I think you did just fine."

Herb's gift to us and the world was his ability to convey his passion for mathematics and our students in a way to which all of us could relate. He did it with humor, with anecdotes, and while commanding the room that any TED talk speaker would envy. His TEDx talk delivered at Onondaga Community in January of 2015 is also available through YouTube.

Although I never worked at the same place as Herb, I always considered him my mentor. He helped me understand that my job was not to teach mathematics, but it was to teach people. Many of these people were members of the lower half of society who had the goal of making it to the upper half. He pointed out that no matter how many people we helped reach that goal there will always be a lower half so there would always be more people to help. Therefore, the job of the community colleges will never be completed.

I want to share a quote from Herb that was posted by his son Steven on Facebook when he announced Herb's passing. "Nobody chooses to be born. Few choose to die. But all of us can choose to make someone else's journey from birth to death a little better because we were there to help along the way." I can think of no better challenge for all of us, especially during these challenging times.

My final words are to paraphrase the words from a song from the musical "Wicked," Herbert I Gross, because I knew you, I have been changed. Because I knew you, I have been changed for good. Rest in peace, my Friend.

Ernie Danforth